

Sequence type explicitly set to Protein  
Sequence format is Pearson

B. subtilis	Coax	258 aa	sp	O51477	B. burgdorferi	262 aa
dbj	BAA21476.1   D. vulgaris	212 aa	sp	P74045	Synechocystis	257 aa
gb	AAD35964.1   T. maritima	246 aa	sp	O25533	H. pylori	223 aa
pir	T36391   S. coelicolor	265 aa	sp	O67753	A. aeolicus	229 aa
sp	Q45338   B. pertussis	267 aa	sp	Q9RX54	D. radiodurans	262 aa
sp	O06282   M. tuberculosis	272 aa	WIT	RCA03301	C. acetobutylicum	250 aa
gb	O93446   T. pallidum	273 aa	WIT	RRC02473	R. capsulatus	258 aa
B. subtilis	Coax					
WIT	RCA03301   C. acetobutylicum					
pir	T36391   S. coelicolor					
sp	O06282   M. tuberculosis					
WIT	RRC02473   R. capsulatus					
dbj	BAA21476.1   D. vulgaris					
sp	Q9RX54   D. radiodurans					
gb	AAD35964.1   T. maritima					
gb	O93446   T. pallidum					
sp	O51477   B. burgdorferi					
sp	O67753   A. aeolicus					
sp	P74045   Synechocystis					
sp	O25533   H. pylori					
sp	Q45338   B. pertussis					
-----MLLVIDVGNTNTVLGVYHDG-----KLEYHWRIE						
NKRAAFMLLFLRSVLKVILVLDVGNTNIVLGIYNDT-----KLTAEWRLS						
-----MLLTIDVGNTHTVLGLFDGE-----DIVEHWRI						
-----MLLAIDVRNTHTVVGLLSGMKEHAKVVQQWRIR						
-----MLLCIDCGNTNTVFSVWDGT-----DFAATWRIA						
-----MTQHFLLEDIGNTNVKIGIAVET-----AVLTSYVLP						
-----MPAFPLLAVDIGNTTTLVGLADASG-----ALHTWRIR						
-----MYLLVDVGNTSHSVFSITEDG-----KTFRRWRLS						
-----MLLIDVGNSHVVFQIGENGGRVCVRELFLA						
-----MNKPLLSELIIDIGNTSIAFALFKDN-----QVNLFIKMK						
-----MRFLTVDVGNSSDIALWEGK-----KVK						
-----METS KPGCGLALDNDKQKPWLGLMIGN-----SRLHWAYC						
-----MPARQSFTDLKN-----LVLCDIGN-----TR						
-----MIILIDSGNSRLKVGWFDPDAP-----QAAREPAPV						

FIG. 6B

B. subtilis | Coax  
WIT | RCA03301 | C. acetobutylicum  
pir | T36391 | S. coelicolor  
sp | O06282 | M. tuberculosis  
WIT | RRC02473 | R. capsulatus  
dbj | BAA21476.1 | D. vulgaris  
sp | Q9RX54 | D. radiodurans  
gb | AAD35964.1 | T. maritima  
gb | O93446 | T. pallidum  
sp | O51477 | B. burgdorferi  
sp | O67753 | A. aeolicus  
sp | P74045 | Synechocystis  
sp | O25533 | H. pylori  
sp | Q45338 | B. pertussis

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gb | O93446 | T. pallidum  
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sp | O67753 | A. aeolicus  
sp | P74045 | Synechocystis  
sp | O25533 | H. pylori  
sp | Q45338 | B. pertussis

TSRHKTEDEFGMILRSLFDHS---GLMFEQIDGIISSVVPPIMFALER  
TDVLRSADEYGIQVMNLFQQD---KLDPTLVEGVISSVVPNIMYSLEH  
TDSRRTADELAVLLQGLMGHPLLGDELGDIDGIAICATVPSVLHELRE  
TESEVTADELALTIDGLIG-----EDSERLTGTAALSTVPSVLHEVRI  
TDHRRTADEYFVWLNTLMQLK-----GLQGRISEAIISSAPRVVFNLRV  
TDPGQTTDSIGLRLLEVLRHAG-----LGPADVGCVASSVVPVGNPLIRR  
TNREMLPDDLALQLHGLFTLA-----GAP-IPRAAVLSSVAPPVGENYAL  
TGVFQTEDELFSHLHPLLG-----DAMREIKGIGVASVVPVLTQNTVIER  
PDARKTQDEYSLLIHALCERAG-----VGRASLRDAFISSVVPVLTTKTIAD  
TNLMRLRYDEVYSFFEEFNDFN-----VN---K-VFISSVVPILNETFKN  
DFLKLSHHEEFLKEEFPKLK-----ALGISVKQSFSEKVRG  
SGNAPLQTWVTDYNPKSAQLP-----VLLGKVPPLMLASVVPE  
IHFAQNYQLFSSAKEDLKR-----LGIQKEIFYISVNEE  
AFDNLDDLALGRWLATLPRRP-----Q-----RALGVNVAGLARGEAIA

MCTKYFHIEPQIVG-PG-MKTGLNIKYDNPKEVGADRIVNAAVAIIHLYG-  
MIRKYFKINPLVVG-PG-IKTGINIKYDNPKEVGADRIVNAAVAHEIYK-  
VTRRYGDPVPAVLVEPG-VKTGVPILTDHPKEVGADRIINAAVAVELY-  
MLDQYWPSVPHVLIIEPG-VRTGIPLLVDNPKEVGADRIVNCLAAVDRFR-  
LCNRYFDCRPYVVGKPG-CELPVAPRVDPGTTVGPDRLVNTVAGYDRHG-  
ACERYL--YRKLIFAPGDIAIPLDNRYPERPAPAEVGADRLVAAVARRLYP-  
ALKRHFMDAFAVSAEN--LPDVTVELDTPGSGVGADRLCNLFGAEKYL-  
FSQKYFHIPIWVKAKN--GCVKWNVKNPSEVGADRVANVAVFVKEYG-  
AVAQISGVQPVVFGPWAYEHLPPVRIPEPVRAEIGTDLVANAAVYVHFR-  
VIFSFFKIKPLFIGFDLNYDLTFNPKSKDKFLLGSDVFANLVAAIENYS-  
KIPKIK-----FLKKEN--FPIQVDYKTPETLGTDRVALAYSAKKFGY-  
QTEVWRVYQPKILTILKN--LPLVNLYP--SFGIDRALAGLTGLTYG-  
NEKALLNCYPNAKNIAG--FFHLETDYVG--LGIDRQMACLA---VN--  
ATLRAGGCDIRWLRAQP-LAMGLRNGYRNPDLQLGADRWACMVGLARQPS

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FIG. 6C

B. subtilis	Coax
WIT	RCA03301   C. acetobutylicum
pir	T36391   S. coelicolor
sp	O06282   M. tuberculosis
WIT	RRC02473   R. capsulatus
dbj	BAA21476.1   D. vulgaris
sp	Q9RX54   D. radiodurans
gb	AAD35964.1   T. maritima
gb	O93446   T. pallidum
sp	O51477   B. burgdorferi
sp	O67753   A. aeolicus
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sp	Q45338   B. pertussis

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sp	O51477   B. burgdorferi
sp	O67753   A. aeolicus
sp	P74045   Synechocystis
sp	O25533   H. pylori
sp	Q45338   B. pertussis

NP--LIVDFGTATTYCYIDENKQYMGGAIAPGITISTEALYSRAAKLPR  
RS--LIIIDFGTATTFCVRENGDYLGAICPGIKVSSEALFEKAALPR  
GP--AIVVDFGTATTFDVAVSARGEYIGGVIAPGIEISVEALGVKGAQLRK  
KA--AIVVDFGSSICVDVVSAAKGEFLGGAAPGVQVSSDAAARSAAALRR  
GD--LIVVDFGTATTFDVAVPDGAYIGGVIAPGVNLSLEALHMAAALPH  
GPRSLVSVDFGTATTFDVCVEG-GAYLGGLICPGVLSSAGALSSRTAKLPR  
GLDYAVVDFGTSTNFDVVGRRRFLGGILATGAQVSDALFARAALPR  
KN--GIIIDMGTAATTVDLVN-GSYEGGAILPGFFMMVHSLFRGTAKLPL  
SA--CVVVDCCGTALTFTAVDGTGLIQGVAIAPGLRTAVQSLHTGTALPL  
FEN-VLVVDLGTACTIFAVSRQDGLGILGGIINSGPLINFNSLHDNAYLIK  
KN--VVVISAGTALVIDLVE-GKFKGGFITLGLGKKILSDLAEGIPE  
FP--CLVVDGGTALTITGFDQDKKLVGGAILPGLGLQLATLGDRLAALPK  
NG--VVVDAGSAITIDLIKE-GKHLGGCILLPGLAQYIHAYKKSAKILEQ  
VHPPLLVASFGTATTLDTIGPDNVFPGGILLPGPAMMRGALAYGTAHLPL  
: . \*:: . . \* : \* :

IEITRPDN---IIGKNTVSAMQSGILFGYVGQVEGIVKRMKWQAKQDLK-  
VELIKPAY---AICKNTISSIQSGIVRYLRQVKYLFKELKENLPDGRRT  
IEVARPRS---VIGKNTVEAMQSGIVYGAGQVDGVVNRMARELADD--P  
VELARPRS---VVGKNTVECMQAGAVFGAGLVDGLVGRIRREDVSGFSVD  
VDVTKPQG---VIGTNTVACIQSGVYWGVI GLVEGIVRQIRMERDRP---  
ISLEVEEDS-PVIGRSTTSLNHGFI FGFAAMTEGVLA-----  
ITLQAPET---AIGKNTVHALQSGLVFGYAEMVDGLLRIRRAELPGE---  
VEVKPADF---VVGKDTTEENIRLGVVNGSVYALEGIIIGRIKEVYGDLP--  
VPLALPDS---VLGKDTTHAVQAGVVRGTLFVIRAMIAQCCKELGCR---  
FPISTPNN---LLERTTSGSVNSGLFYQYKYLIEGVYRDIKQMYKKK---  
FFPEEVEI---FLGRSTRECVLGAYRESTEFIKSTLKLWRKVFKRK---  
LEMDQLTELPDRWALDTPSAIFSGVYGVGLGALQSYLDWQKLFPGA---  
PFKALDSL---EVLPKSTRDAVNYGMVLSVIACIQHLAK--NQK-----  
ADGLVADY-----PIDTHQAIASGIAAAQAGAIVRQWLGRQRYGQAP--  
\* : \*

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WIT	RCA03301   C. acetobutylicum
plr	T36391   S. coelicolor
sp	006282   M. tuberculosis
WIT	RRC02473   R. capsulatus
dbj	BAA21476.1   D. vulgaris
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sp	P74045   Synechocystis
sp	025533   H. pylori
sp	Q45338   B. pertussis

FIG. 6D

---VIATGG-----LAPLANES-----DCIDI VDPFLT LKGLLI  
RTSLVLATGG-----LAKLIN-----  
DDVTVIATGG-----LAPMVLGES-----SVIDEHEPWL TLMGLRLV  
HDVAIVATGH-----TAPLLPEL-----HTVDHYDQHL TLOGLRLV  
--MKVIATGG-----LASLFDLGF-----DLFDKVEDDL TMHGLRLI  
-----  
--AVAVATGG-----FSRTVQIGC-----QEIDYYDET LTLRGLVEL  
---VVLITGG-----QSKIYK-DM-----IKHEIFDEDL TIKGVYHF  
--CAAVITGG-----LSRLFS-SE-----VDFPPI DAQL TLSGLAHI  
--FNLITGG-----NADLILSLI-----EIEFIFNIHL TVEGVRIL  
--FKVVITGG-----EGKYFS-----KFGIYDPL LVHRGMRNL  
--AMVITGG-----DGKILHGFLKEHSPNLSVAWDNL IFLGMAAI  
---IYLCGG-----DAKYLSAFL-----PHSVCKERLVFDGMEIA  
--EIYVAGGWP EVRQEAERLLAVTGAAFGATPQPT YLDSPVL DGLAAL

YERNRVGSV-----  
-----  
YERNVSRM-----  
FERNLEVQ RGR LKTAR-----  
FDYNKGLGA-----  
-----  
WASRSEVR-----  
CFGD-----  
ARLVPTSLLPATVSGSSGN  
GNSIDFKFVN-----  
LYLYHRI-----  
HHGDRPIC-----  
LKKAGILECK-----  
AAQGAPTA-----